

### **Remarks**

The above Amendments and these Remarks are in reply to the Office Action mailed October 22, 2002. No fee is due for the addition of any new claims.

Claims 1-15 were pending in the Application prior to the outstanding Office Action. In the Office Action, the Examiner allowed claims 6 and 8, rejected claims 1-5, 7 and 9-15. The present Response cancels claim 2, amends claims 1, 3-5 and 9, leaving for the Examiner's present consideration claims 1, 3-5, 7, 9-15.

In light of the amendments and remarks contained herein, reconsideration of the rejections is requested.

### **RESPONSE TO REJECTION UNDER 35 USC §103**

#### **The Claimed Invention Distinguishes Over Dryer**

The Examiner rejected claims 1-5, 7, and 9 under 35 USC §103(a) as being unpatentable over Dryer, D.C., "Ghosts in the Machine: Personalities for Socially Adroit Software Agents", Proc. Socially Intelligent Agents Workshop, Cambridge, MA, November 8-10, 1997, 31 pages ("Dryer"). Applicants have amended independent claim 1 to more clearly recite the present invention as it distinguishes over Dryer.

Dryer discloses the results of a laboratory study that investigated user response to software agents with personalities. The author assessed the personality of the user, user perception of the characters with different personality factors, and whether the user liked the characters. Dryer then derived at conclusions based on user response to the characters (page 33, left column, second paragraph).

The present invention teaches a system for designing synthetic character personalities. The system includes a personality trait selection device and a personality builder. The personality trait selection device displays at least one selectable personality trait. A trait indicator corresponds to a selected personality trait and represents an amount of the corresponding selectable personality trait. The personality builder then groups and weights the selected personality traits into a character profile. The selected personality traits are each weighted according to the amount represented in their corresponding trait indicator.

Dryer does not disclose a system for designing personalities having a personality trait selection device and personality builder that weights personality traits as claimed in claim 1. Dryer discloses how a group of users responded to a software agent used in connection with a specific application, but does not disclose or suggest a personality builder that weights each selected personality trait in a character profile according to the amount of each selected personality trait represented in the corresponding trait indicator.

Claim 1 has been amended to more clearly recite what the Applicant considers one embodiment of the invention. Examiner stated in the most recent Office Action that no where in the claims does the Applicant include “weighting” features. Applicant respectfully traverses this statement, as the weighting element was recited in claim 2 as originally filed and unamended until the present Response. In particular, claim 2 recited that the “personality builder weights each selected personality trait in said character profile”, thereby including a weighting feature in the claimed invention. The weighting feature from claim 2 has been added to claim 1 to clarify the invention. Applicant respectfully submits that incorporating the weighting element from claim 2 into claim 1 does not necessitate a new search by the Examiner in this case. In light of the statements

made above, Applicant respectfully submits that claim 1 is now in condition for allowance and requests the rejection in light of Dryer be withdrawn.

Claims 3-5 and 7 depend directly on allowable claim 1. Applicant respectfully submits these dependent claims are also now in condition for allowance as being dependent on an allowed claim, and requests the rejection to claims 3-5 and 7 be withdrawn.

**The Claimed Invention Distinguishes Over Dryer in view of Blumberg et al.**

The Examiner rejected claims 10-12 and 14-15 under 35 USC §103(a) as being unpatentable over Dryer in view of Blumberg et.al., "Multi-Level Direction of Automonous Creatures for Real-Time Virtual Environments", Proc. 22nd Annual International Conference on Computer Graphics and Interactive Techniques, 1995, p. 47-54 ("Blumberg et al."). Applicants have amended claim 9 to more clearly recite the present invention in light of Dryer in view of Blumberg.

Blumberg et al. discloses a behavior system that receives internal variables, releasing mechanisms, and level of interest data to determine the control of a character (Figure 6, p. 51, Section 6.1). The system of Blumberg et al. receives non-behavior related data such as releasing mechanism data and internal variable data. Blumberg does not disclose a method of rendering a personality that includes rendering at least one behavior of a synthetic character based on a character profile having weighted selected personality traits. Further, Blumberg et al. does not disclose specifying a trait indicative behavior and implementing behaviors consistent with the specified trait indicative behavior nor specifying a trait indicative behavior and implementing behaviors consistent with the trait indicative behavior.

The invention as recited in claim 9 includes the element of rendering at least one behavior of a synthetic character based on a character profile having weighted selected personality traits. As discussed above, neither Dryer nor Blumberg disclose a character profile with weighted selected personality traits. For the reasons discussed above, Applicant respectfully submits that the present invention as claimed in amended claim 9 distinguishes over the combination of Dryer in view of Blumberg et al. and requests the rejection be withdrawn.

Claims 10-15 are dependent on allowable claim 9 and include the elements of claim 9 in addition to their own respective distinguishing elements. Therefore, Applicant respectfully submits that claims 10-15 are now allowable over the rejection of Dryer in view of Blumberg et al. and requests the rejection be withdrawn.

**The Claimed Invention Distinguishes Over Dryer in view of Rousseau et al.**

The Examiner rejected claim 13 USC §103(a) as being unpatentable over Dryer in view of Rousseau et al.'s "Improvisational Synthetic Actors with Flexible Personalities", Knowledge Systems Laboratory Technical Report No. KSL-97-10, December 1997 ("Rousseau et al.").

Rousseau et al. discloses a social-psychological model that distinguishes personality traits, moods, and attitudes. Personality traits are patterns of behavior and modes of thinking that determine a person's adjustment to the environment that change little over time. Moods correspond to emotions or sensations due to physical need that vary over time. Attitudes characterize an interpersonal relationship that may develop over time (page 9, Section 4). Rousseau et al. does not disclose or suggest rendering a behavior of a synthetic character based on a character profile having a weighted selected personality trait as claimed in claim 9.

As discussed above, claim 13 is dependent on allowable claim 9 and includes the elements of claim 9 in addition to its own respective distinguishing elements. Therefore, Applicant respectfully submits that claim 13 is now allowable over the rejection of Dryer in view of Blumberg et al. and requests the rejection be withdrawn.

The references cited by the Examiner but not relied upon have been reviewed, but are not believed to render the claims unpatentable, either singly or in combination.

### Conclusion

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned before an advisory action is issued in order to avoid any unnecessary filing of an appeal.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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In the Claims:

1. A system for designing personalities for synthetic characters, comprising:

a personality trait selection device that displays at least one selectable personality trait, the personality trait selection device including at least one trait indicator, each trait indicator corresponding to one of at the at least one selectable personality traits and representing an amount of the corresponding selectable personality trait; and

a personality builder that groups and weights the selected personality traits into a character profile, the character profile including weighted selected personality traits, each of the selected personality traits weighted according to the amount represented in the trait indicator corresponding to the selected personality trait.

2. (cancelled)The system according to Claim 1, wherein:

said personality trait selection device comprises at least one trait indicator, each trait indicator representing an amount of a corresponding one of the selectable personality traits; and

said personality builder weights each selected personality trait in said character profile according the amount of each selected personality trait represented in the corresponding trait indicator.

3. The system according to Claim 1[2], wherein the trait indicators are graduated dials operating between a high anchor and a low anchor.

4. The system according to Claim 1[2], further comprising:

a personality attribute selection device that displays at least one selectable personality attribute; and

a mapper configured to map each selected personality attribute into amounts of the trait indicators according to an amount each selected personality attribute is represented in the selectable personality traits.

5. The system according to Claim 1[2], wherein the selectable personality traits include at least one primary trait of dominance, warmth, conscientiousness, emotional stability, and openness.

9. A method of rendering a personality, comprising the step of:

rendering at least one behavior of a synthetic character based on a character profile having weighted selected personality traits.